

WHAT IS CLAIMED IS:

- 1 1. A machine-implemented caller interface method, comprising:
2 receiving a sequence of recognized characters beginning with a first recognized
3 character and ending with a last recognized character;
4 selecting successive characters one at a time from the recognized character
5 sequence in order beginning with the first recognized character;
6 for each selected character, constructing a current potential match set of potential
7 character string matches by
8 appending one or more characters selected from a set of misrecognized
9 characters including the selected character to each potential
10 character string match in a prior potential match set constructed for
11 a preceding selected character, if any, and
12 deleting from the current potential match set potential character string
13 matches missing from a list of reference character strings; and
14 transmitting for presentation to a caller a reference data item corresponding to the
15 potential character string match in a current potential match set containing one a single
16 potential character string match after non-matching potential character string matches
17 have been deleted.
- 1 2. The method of claim 1, wherein the sequence of recognized characters is
2 received from a speech recognition system.
- 1 3. The method of claim 2, further comprising transmitting to the speech
2 recognition system a grammar identifying characters to be recognized.
- 1 4. The method of claim 1, wherein each misrecognized character set contains
2 at least one character likely to be misrecognized for the corresponding selected character
3 by a speech recognition system.
- 1 5. The method of claim 1, wherein deleting comprises comparing potential
2 character string matches and reference character strings of equal character length.
- 1 6. The method of claim 1, wherein the misrecognized character sets and the
2 reference character strings are stored in a single document file.

1 7. The method of claim 6, wherein each list includes a respective table
2 containing reference character strings of equal character length, and different tables
3 contain reference character strings of different respective character length.

1 8. The method of claim 1, further comprising transmitting for presentation to
2 the caller reference data items corresponding to the potential character string matches in
3 the current potential match set constructed after all recognized characters in the sequence
4 have been selected.

1 9. The method of claim 1, further comprising transmitting to the caller a
2 message prompting the caller to spell at least a portion of an identifier of a requested
3 reference data item.

1 10. The method of claim 9, wherein after all recognized characters in the
2 sequence have been selected and multiple potential character string matches remain in the
3 current potential match set, further comprising transmitting to the caller a message
4 prompting the caller to spell an additional portion of the identifier of the requested data
5 item.

1 11. A machine-readable medium storing machine-readable instructions for
2 causing a machine to:
3 receive a sequence of recognized characters beginning with a first recognized
4 character and ending with a last recognized character;
5 select successive characters one at a time from the recognized character sequence
6 in order beginning with the first recognized character;
7 for each selected character, construct a current potential match set of potential
8 character string matches by
9 appending one or more characters selected from a set of misrecognized
10 characters including the selected character to each potential
11 character string match in a prior potential match set constructed for
12 a preceding selected character, if any, and
13 deleting from the current potential match set potential character string
14 matches missing from a list of reference character strings; and
15 transmit for presentation to a caller a reference data item corresponding to the
16 potential character string match in a current potential match set containing one a single

17 potential character string match after non-matching potential character string matches
18 have been deleted.

1 12. The medium of claim 11, further comprising machine-readable
2 instructions for causing a machine to transmit to the speech recognition system a
3 grammar identifying characters to be recognized.

1 13. The medium of claim 11, wherein each misrecognized character set
2 contains at least one character likely to be misrecognized for the corresponding selected
3 character by a speech recognition system.

1 14. The medium of claim 11, further comprising machine-readable
2 instructions for causing a machine to compare potential character string matches and
3 reference character strings of equal character length.

1 15. The medium of claim 11, wherein the misrecognized character sets and the
2 reference character strings are stored in a single document file.

1 16. The medium of claim 15, wherein each list includes a respective table
2 containing reference character strings of equal character length, and different tables
3 contain reference character strings of different respective character length.

1 17. The medium of claim 11, further comprising machine-readable
2 instructions for causing a machine to transmit for presentation to the caller reference data
3 items corresponding to the potential character string matches in the current potential
4 match set constructed after all recognized characters in the sequence have been selected.

1 18. The medium of claim 11, further comprising machine-readable
2 instructions for causing a machine to transmit to the caller a message prompting the caller
3 to spell at least a portion of an identifier of a requested reference data item.

1 19. The medium of claim 18, further comprising machine-readable
2 instructions for causing a machine to transmit to the caller a message prompting the caller
3 to spell an additional portion of the identifier of the requested data item after all
4 recognized characters in the sequence have been selected and multiple potential character
5 string matches remain in the current potential match set.

1 20. The medium of claim 11, wherein the machine-readable instructions are
2 implemented in a voice-based extensible markup language.

1 21. A caller interface system, comprising a voice browser programmed to:
2 receive a sequence of recognized characters beginning with a first recognized
3 character and ending with a last recognized character;
4 select successive characters one at a time from the recognized character sequence
5 in order beginning with the first recognized character;
6 for each selected character, construct a current potential match set of potential
7 character string matches by
8 appending one or more characters selected from a set of misrecognized
9 characters including the selected character to each potential
10 character string match in a prior potential match set constructed for
11 a preceding selected character, if any, and
12 deleting from the current potential match set potential character string
13 matches missing from a list of reference character strings; and
14 transmit for presentation to a caller a reference data item corresponding to the
15 potential character string match in a current potential match set containing one a single
16 potential character string match after non-matching potential character string matches
17 have been deleted.

1 22. The system of claim 21, further comprising a speech recognition system
2 operable to transmit the sequence of recognized characters to the voice browser.

1 23. The system of claim 22, wherein the voice browser is programmed to
2 transmit to the speech recognition system a grammar identifying characters to be
3 recognized.

1 24. The system of claim 21, wherein each misrecognized character set
2 contains at least one character likely to be misrecognized for the corresponding selected
3 character by a speech recognition system.

1 25. The system of claim 21, wherein the voice browser is programmed to
2 compare potential character string matches and reference character strings of equal
3 character length.

1 26. The system of claim 21, wherein the misrecognized character sets and the
2 reference character strings are stored in a single document file loadable by the voice
3 browser.

1 27. The system of claim 26, wherein each list includes a respective table
2 containing reference character strings of equal character length, and different tables
3 contain reference character strings of different respective character length.

1 28. The system of claim 21, wherein the voice browser is programmed to
2 transmit for presentation to the caller reference data items corresponding to the potential
3 character string matches in the current potential match set constructed after all recognized
4 characters in the sequence have been selected.

1 29. The system of claim 21, the voice browser is programmed to transmit to
2 the caller a message prompting the caller to spell at least a portion of an identifier of a
3 requested reference data item.

1 30. The system of claim 29, the voice browser is programmed to transmit to
2 the caller a message prompting the caller to spell an additional portion of the identifier of
3 the requested data item after all recognized characters in the sequence have been selected
4 and multiple potential character string matches remain in the current potential match set.

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